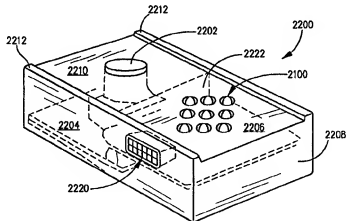




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(54) Title: SYSTEM FOR OBJECT VERIFICATION AND IDENTIFICATION



(57) Abstract

A method and apparatus (2200) for identifying, or verifying the identity of objects, such as faces. The present system identifies an object, such as a face, from unique signals and values emitted by the attributes of components on the object such as eyes, eyebrows, hairline, mouth, cheeks, ears, and chin on a face (Fig. 20). The object image is analyzed to determine the different components. In turn, these components are then transformed through one of several transformations such as, geometric, cosine, or Kohonen's, to yield a unique description for each component. The data obtained from the object is then transferred to either a portable memory (fig. 1, Numeral 70), such as a magnetic stripe card, smart card, or a one- or two-dimensional bar-code card or to a data base (Fig. 1, Numeral 72). A decision process of comparing the two results, from the object image, and from the data encoded in ID card, or data base, is subsequently performed (Fig. 2).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/12716

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :G06K 9/46

US CL :382/115

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 235/380,382,382.5; 340/825.34; 382/115,118; 902/3,4,5,25,26,27,29

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,432,864 A (LU et al) 11 July 1995, see col. 6, lines 54-63; col. 7, lines 32-47; col. 8, lines 1-21 and 65-68; col. 9, lines 4-6, lines 21-24 and lines 46-64; and col. 10, lines 1-3.	1-6
A	US 5,466,918 A (RAY et al), 14 November 1995, col. 2, lines 49-66.	1, 3
A	US 4,712,103 A (GOTANDA) 08 December 1987, col. 2, lines 27-49.	1
A	US 4,754,487 A (NEWMUIS) 28 June 1988, col 3, line 55 - col. 4, line 13.	1
A	US 5,410,609 A (KADO et al) 25 April 1995, col. 2, lines 8-51.	1

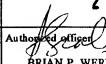


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INTERNATIONAL SEARCH REPORT

International application No.
PCT.US97/12716

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,975,969 A (TAL) 04 December 1990, col. 3, lines 7-62.	1